

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : MacIsaac  
Appl. No. : 10/722,423  
Filed : 11/28/2003  
Title : NETWORK BANDWIDTH ANOMALY DETECTOR APPARATUS,  
METHOD, SIGNALS AND MEDIUM  
Grp./A.U. : 2631  
Examiner :

Docket No.: 14534

Honorable Assistant Commissioner of Patents  
Alexandria, VA 22313-1450

Sir:

**PTO CUSTOMER NO. 000293**

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R., §§ 1.97-1.99, applicant submits the following information which may be of interest to the examiner in charge of the above referenced application for patent. Only copies of the non-US references listed on the attached Form PTO-1449 are attached.

Respectfully submitted,

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Date: MARCH 4, 2004



PTO/SB/08A (10-01)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 3

**Complete if Known**

Application Number	10 722 423
Filing Date	11/28/03
First Named Inventor	Gary Lorne MacIsaac
Art Unit	2631
Examiner Name	
Attorney Docket Number	82977-6

**U.S. PATENT DOCUMENTS**

Examiner	Cite No. <sup>1</sup>	Document Number Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US-5,606,668	02-25-1997	Shwed	
	A2	US-6,088,804	07-11-2000	Hill et al.	
	A3	US-5,892,903	04-06-1999	Klaus	
	A4	US-5,343,485 A	08-30-1994	Khalil	
	A5	US-6,321,338 B1	11-20-2001	Porras et al.	
	A6	US-2002/0002686 A1	01-03-2002	Vange et al.	
	A7	US-2002/0176369 A1	11-28-2002	Porikli et al.	
	A8	US-6,292,466 B1	09-18-2001	Droz, Patrick	
	A9	US-6,499,107 B1	12-24-2002	Gleichauf et al.	
	A10	US-5,488,715	01-30-1996	Wainwright, Paul	
	A11	US-2002/0166063 A1	11-07-2002	Lachman et al.	
	A12	US-2002/078381 A1	06-20-2002	Farley et al.	
	A13	US-6,393,316 B1	05-21-2002	Gillberg et al.	
	A14	US-2003/0084327 A1	05-01-2003	Lingafelt et al.	
	A15	US-			
	A16	US-			
	A17	US-			
	A18	US-			
	A19	US-			
	A20	US-			

**FOREIGN PATENT DOCUMENTS**

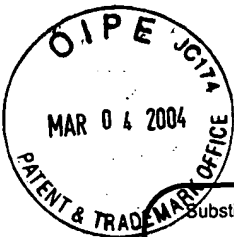
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B1	WO 99/40703 A1	08-12-1999	Ericsson Aus. Pty. Ltd.		<input type="checkbox"/>
	B2	WO 01/80524 A3	10-25-2001	Circadence Corp.		<input type="checkbox"/>
	B3	WO 01/46807 A1	06-28-2001	MCI Worldcom, Inc.		<input type="checkbox"/>
	B4	EP 0 999 718 A1	10-05-2000	Nortel Networks Corp.		<input type="checkbox"/>
	B5	WO 02/21802 A1	03-14-2002	Univ. of Michigan		<input type="checkbox"/>
	B6	WO 02/21244 A2	03-14-2002	Univ. of Michigan		<input type="checkbox"/>
	B7	WO 02/21801 A1	03-14-2002	Univ. of Michigan		
	B8	WO 02/21302 A1	03-14-2002	Mazu Networks, Inc.		
	B9	WO 02/21800 A1	03-14-2002	Univ. of Michigan		

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Sheet 2 of 3

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Application Number	10 722 423
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Attorney Docket Number	82977-6

**FOREIGN PATENT DOCUMENTS**

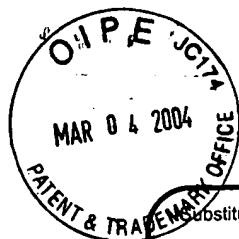
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	B10	WO 02/21296 A1	03-14-2002	Mazu Networks, Inc.		
	B11	WO 02/21771 A1	03-14-2002	Mazu Networks, Inc.		
	B12	WO 02/21297 A1	03-14-2002	Mazu Networks, Inc.		
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	B14	WO 02/025402 A3	03-28-2002	BBNT Solutions LLC		
	B15	WO 02/03084 A1	01-10-2002	Netrake Corporation		
	B15	WO 99/48303 A2	09-23-1999	Cisco Tech Ind.		<input type="checkbox"/>
						<input type="checkbox"/>

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Sheet 3 of 3

### Complete if Known

Application Number	10 722 423
Filing Date	11/28/03
First Named Inventor	Gary Lorne MacIsaac
Art Unit	2631
Examiner Name	
Attorney Docket Number	82977-6

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C1	CERT and FedCIRC, "CERT Advisory CA-2000-01 Denial-of-Service Developments", Computer Emergency Response Team of Carnegie-Mellon University Software Engineering Institute, January, 2001, online: <a href="http://www.cert.org/advisories/CA-2000-01.html">http://www.cert.org/advisories/CA-2000-01.html</a> (date accessed: 24 February 2004).	
	C2	H. DEBAR et al., "Towards a taxonomy of intrusion-detection systems" (1999) 31:8 Computer Networks 805.	
	C3	M. ROUGHAN et al., "Real-Time Estimation of the Parameters of Long-Range Dependence" (2000) 8:4 IEEE/ACM Trans. on Networking 467.	
	C4	B.C. SOH et al. "Setting optimal intrusion-detection thresholds" (1995) 14:7 Computers & Security Int'l J. 621.	
	C5	J. MIRKOVIC et al. "A Taxonomy of DDoS Attacks and DDoS Defense Mechanisms" University of California, Los Angeles, Computer Science Department Technical Report #020018, published prior to December 13, 2002, online: <a href="http://www.lasr.cs.ucla.edu/ddos/ucla_tech_report_020018.pdf">http://www.lasr.cs.ucla.edu/ddos/ucla_tech_report_020018.pdf</a> (date accessed: 24 February 2004).	
	C6	D. MOORE et al. "Internet Quarantine: Requirements for Containing Self-Propagating Code" University of California, San Diego, August, 2001, online: <a href="http://www.caida.org/outreach/papers/2003/quarantine/worm-infocom03.pdf">http://www.caida.org/outreach/papers/2003/quarantine/worm-infocom03.pdf</a> (date accessed: 24 February 2004).	
	C7	P. BARFORD et al. "A Signal Analysis of Network Traffic Anomalies" November, 2002, online: <a href="http://www.icir.org/vern/imw-2002/imw2002-papers/173.pdf">http://www.icir.org/vern/imw-2002/imw2002-papers/173.pdf</a> (date accessed: 24 February 2004).	
	C8	T. M. GIL et al. "MULTOPS: a data-structure for bandwidth attack detection" Proceedings of the 10th USENIX Security Symposium, Washington, D.C., August 2001, online: <a href="http://pdos.lcs.mit.edu/thomer/mit/multops_usenix2001.pdf">http://pdos.lcs.mit.edu/thomer/mit/multops_usenix2001.pdf</a> (date accessed: 24 February 2004).	

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